Safeguarding scholarly integrity:
A novel approach to detecting predatory journals

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1. Background

> *"Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices."*
> (Grudniewicz et al., 2019, p. 211)

- Predatory journals are a major issue for scholarly communication and research reliability.
- In organisational research, reputable publications are crucial, and predatory journals can damage the credibility of both institutions and researchers.
  - In medical fields, the hazardous outcomes for predatory research are magnified.
- Predatory journals may also engage in fraudulent practices by requesting article processing fees (APCs) while making false assurances of inclusion in reputable databases like Medline, or Scopus.
- There is no single, consistent method or tool for identifying what is a predatory journal.
- This project suggests a new method for detecting predatory journal publications in institutional research repositories, with a focus on medical journals.

2. Objectives

The aim of the project is to:
- Identify if Monash Health affiliated researchers have published in a predatory journal.
- Develop a process for identifying predatory publishing using freely available tools and data.
- Develop a predatory risk rating to identify publications that are at low, medium, or high risk of being predatory.
- Provide researchers with additional education and support pathways for publishing.

Identify   **Rate**   **Educate**

3. Methods

A list of journals was exported from Monash Health's institutional research repository (MHRR), which uses DSpace software.

Journals on this list were allocated 1 point for each of the risk factors:
- Presence on Beale's List.
- Not indexed in Scopus.
- Not indexed in Medline.
- Not indexed in the Directory of Open Access Journals (DOAJ)
- Not listed in the Excellence in Research Australia (ERA) 2023 Submission Journal List.
- No ISSN.

The lists and databases used to establish risk factors were selected because they are freely available and typically have their own specific conditions for inclusion. However, no single list or database can definitively identify predatory journals. For instance, Grudniewicz et al. (2019, p. 211) highlight the lack of consensus between Beall's List, Cabells (a subscription-based database), and the DOAJ. Due to this discrepancy, a balanced approach using multiple sources and a risk rating was adopted.

Based on the point system, journals were categorised as No, Low, Medium, or High risk, with higher points indicating greater risk.

The term "risk" was used because it does not definitively label a journal as predatory, instead providing guidance to inform researchers.

No risk	Low risk	Medium risk	High risk
0 points	1–2 points	3–4 points	5–6 points
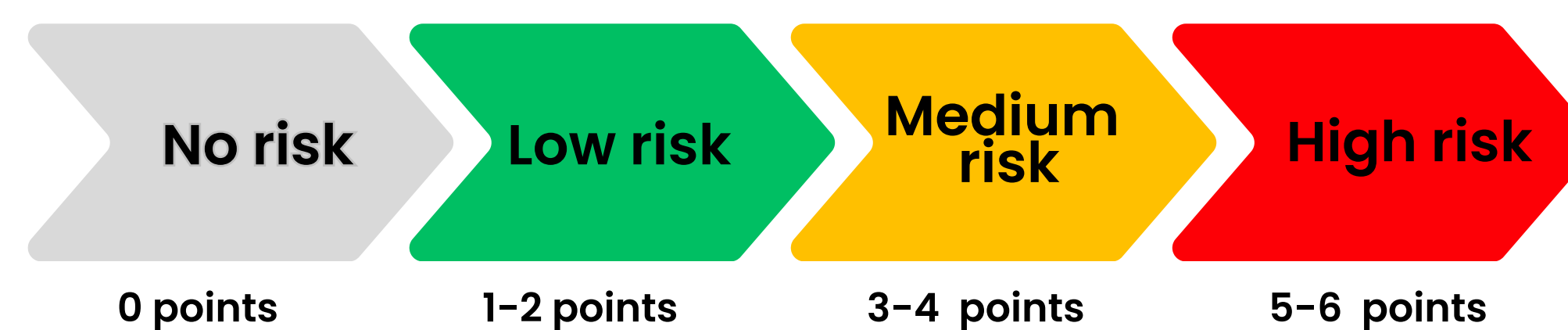
4. Results

Utilising the point-based risk rating system:
- 1419 journals showed no risk of being predatory.
- 188 journals exhibited a low risk of being predatory.
- 40 journals presented a medium risk of being predatory.
- 4 journals posed a high risk of being predatory.

Using this scale, approximately **14% of the journals within the repository may be predatory**. A study limited to Elsevier journals estimated that the rate of predatory publishing within medical research is 2% (Chandra & Dasgupta, 2024, p. 1). The variation in these figures might stem from the study's age and its narrow focus on publishers. The Monash Health Research Repository (MHRR) encompasses all research outputs associated with Monash Health, without imposing limitations based on publishers.

4. Results (continued)

The 4 journals identified as high risk included:
- *Clinical Practice*
- *Diabetes Management*
- *World Journal of Cardiology*
- *World Journal of Gastrointestinal Oncology*

There was only one article from each journal present in the Research Repository. Based on the APC information currently accessible on the journals' websites, the authors of these 4 articles were charged an approximate total of **$8,705 USD**.

Percentage of MHRR journals at risk of being predatory

No risk · Low Risk · Medium Risk · High Risk

Medium Risk 2.3%
Low Risk 10.9%
No risk 86.6%
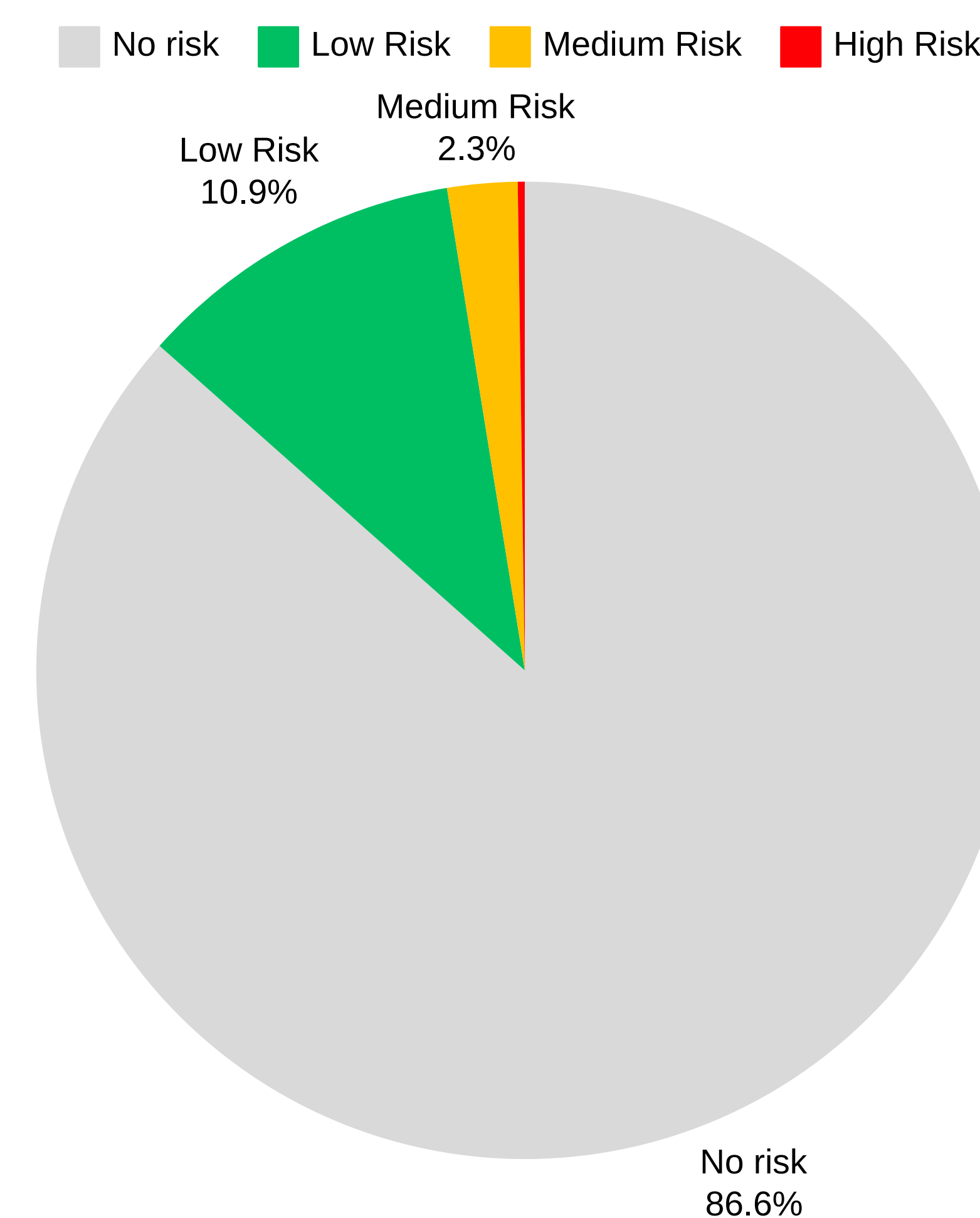
5. Conclusion

This innovative approach aims to provide organisations and the wider research community, with a reliable and free process for detecting predatory journal publications. Though focused on medical publishing, it can be adapted for use in other fields of research.

By reducing the spread of unreliable research, Monash Health Library preserves the integrity of research and maintains the credibility of scholarly communication channels. The library is dedicated to helping researchers and institutions identify predatory publishing. This effort builds on the "Predatory Publishing A-Z Elements" poster created in 2022, which was later adapted by the Tertiary Education Quality & Standards Agency (TEQSA).

6. Next Steps

Up to 14% of journals published in by Monash Health affiliated researchers may be at risk of being predatory, a significant increase from the estimated 2%. To address this discrepancy, the Monash Health Library will provide targeted education for researchers who have published in Medium or High risk journals, currently at 2.5%.

Monash Health authors who have published in suspected Medium or High risk predatory journals will be contacted individually and privately. They will receive an explanation of the reason for the contact and information about predatory publishing. Additionally, a live webinar on predatory publishing will be conducted, recorded, and made available to all Monash Health employees and researchers.

Acknowledgements

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